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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,382	09/17/2003	Kouji Sasano	CU-3361	4420
26530	7590	08/30/2005	EXAMINER	
LADAS & PARRY LLP 224 SOUTH MICHIGAN AVENUE SUITE 1600 CHICAGO, IL 60604			GIBSON, ERIC M	
			ART UNIT	PAPER NUMBER
			3661	

DATE MAILED: 08/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/664,382	Applicant(s) SASANO, KOUJI	
	Examiner Eric M. Gibson	Art Unit 3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,8 and 9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,8 and 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-4, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Endo et al. (US006289278B1) in view of Bendett et al. (US005875408A).

a. Per claim 1, Endo teaches a vehicle position displaying apparatus with a light source irradiating light to a target position (101, figure 1), an image pickup device (102, figure 1), a GPS receiver (209, figure 8) with an inherent antenna for functionality, and a data storing unit which stores measurement data in a storage medium (column 11, lines 51-52). Endo teaches using the image pickup device to determine the form of a road the vehicle is traveling (column 14, lines 26-31). Endo does not explicitly teach using a laser to light a target position fixedly existing on a road. However, in the background of the invention, Endo states that a laser may be used instead of an image pickup device to perform the road form determination (column 31-44). Bendett teaches an automated vehicle guidance system that includes one such laser for determining the road form. Specifically, the laser operates in the system taught by Bendett by irradiating light to a target position fixedly existing on a road (column 5, lines 8-28). It would have been obvious to one of ordinary skill in the art, at the time of invention, to irradiate light

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to a target position fixedly existing on a road as taught by Bendett, to determine the road form in an equivalent manner using a laser instead of an image pickup device as taught and explicitly contemplated by Endo.

b. Per claim 2, Endo further teaches a position correction unit (column 11, lines 39). Alternatively, DGPS receivers are common and well-known alternatives in the art for position correction.

c. Per claim 3, Endo further teaches a display device (115, figure 8) which displays map data in a neighborhood of a current position of the vehicle (column 10, lines 20-25), and a measurement position display unit which displays a measurement position on the display device (column 7, lines 46-50).

d. Per claim 4, Endo teaches that the GPS measurement data is associated with a place name (column 9, lines 23-33).

e. Per claims 8 and 9, Bendett teaches that the target position may be at the edge of the road or of a marker painted on the road (column 7, lines 1-4).

2. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Endo and Bendett further in view of Breed et al. (US006526352B1).

a. Per claim 5, the combination teaches the invention as explained in the rejection of claim 1. Endo further teaches an image-capturing device (102, figure 1). The combination does not teach associating the GPS measurement data with the image data. Breed teaches a method and arrangement for mapping a road that includes associating the image data with the GPS measurements as a part of the mapping process (see claim 29). It would have been obvious to one of ordinary skill in the art, at

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the time of invention, to include the GPS measurement data with the images, in order to form a map database, as taught by Breed.

Response to Arguments

3. Applicant's arguments with respect to claims 1-5, 8, and 9 have been considered but are moot in view of the new ground(s) of rejection. Specifically, the motivation to use a laser to detect the road edges or markers is explicitly contained with the Endo reference and the Bendett reference teaches the specifics of the laser's operation in a vehicle system as explained in the above rejections.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bergholz et al. (US006151539A) teaches an autonomous vehicle arrangement and method for controlling an autonomous vehicle.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric M. Gibson whose telephone number is (571) 272-6960. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EMG


MICHAEL J. ZANELLI
PRIMARY EXAMINER